



MONTANA'S

**Summer 2005
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IMMUNE RESPONSE

Published by the Montana Immunization Program

Update on Revision of School Immunization Rules... which became effective on July 1, 2005.

Summary of amended school immunization requirements:

1. Prior to kindergarten entry, a child must have two MMRs separated by at least 28 days. *(Became effective on July 1, 2005)*
2. Laboratory testing as proof of immunity for post-secondary students is acceptable for measles as well as rubella. Laboratory testing must be from a CLIA approved laboratory. *(Became effective on July 1, 2005)*
3. *effective on July 1, 2005)*
4. A large section of the previous administrative rule was removed because it applied only to daycare children, not for the children in a pre-school setting.
5. **Prior to school entry in 2006**, children, at least 11 years of age, entering grade 7 must have a Td booster if no Td vaccine has been given for 5 years.

A draft of the amended school immunization requirements was mailed out to interested parties from the Montana Immunization Program. This is not the official version of the rule, because the process to have the replacement pages for the Administrative Rules of Montana approved by the office of the Secretary of State pushes that timing to possibly August. We know you need the latest version of the rules that we can give you, which will impact children and adults returning to school or entering school in 2005.

The Immunization program would like to thank the many parties that reviewed the proposed amendment of the school immunization rules, and provided written comments. The revised rule was strengthened because of your input based on the wide range of experience you have brought to the process. If you have additional comments or wish to discuss the school rules, feel free to contact us at the phone numbers or e-mail addresses found on the last page of this newsletter.

Без перевода-Danke-Merci-Gracias!

Many Thanks from the Montana Immunization Program from the bottom of our hearts! We were all delighted by the warm reception during our 2005 Regional Workshops. During those cold winter days, our hearts were warmed by your gracious hospitality!

Special thanks go to Custer County, Yellowstone County, Missoula County, Butte-Silver Bow County, and Cascade County Health Departments for hosting and facilitating this 2-day event in your communities. You folks made it possible for all of us to come together!

All of the local county health department nurses are to be commended for their role in facilitating their local area providers to attend these events. Our turnout was outstanding with a total of 265 attendees for the full day workshop and 150 for the half-day Immunization-101 workshop. As you are well aware, vaccine preventable diseases are a dynamic, ever-changing field and gathering us all together helps us to learn from each other.

Bekki, Jim, Tim, Laura, Liz, Marci, Joyce, and Beth

Thankyou-Thankyou-Thanks!

Farewell to Montana's Unsung Vaccinologist

What do mumps, measles, rubella, MMR, chickenpox, Marek's disease, hepatitis A and B, meningitis and influenza and the first vaccine to prevent cancer have in common? They are vaccines developed by Maurice Hilleman. Dr. Hilleman also discovered that influenza can shift or drift creating new viruses. If the shifted flu virus was particularly virulent, millions would be at risk of illness and death.

On April 17, 1957, while working for Walter Reed Army Institute of Research, Hilleman read an article in the New York Times about an influenza outbreak in Hong Kong striking roughly 250,000 people. Hilleman requested throat swabs from some of the Hong Kong cases. Working 14-hour days, Hilleman's team was able to culture and isolate what appeared to be a new strain of flu. Hilleman asked for blood samples from the general public and discovered no one had antibodies to this new strain.

Alarmed by his discovery, Hilleman notified the Armed Forces Epidemiological Board, CDC, WHO and our country's six vaccine manufacturers. Hilleman sent samples of the newly isolated virus to give the manufacturers a head start on the vaccine. By the fall of 1957 when the flu hit the United States there were 40 million doses of vaccine on hand.

In March 1963, Hilleman's daughter Jeryl Lynn came down with the mumps. Being a conscientious scientist, Hilleman took throat swabs from his daughter and began to isolate the virus. He grew the virus in chicken embryos and was able to produce what is known as an attenuated form of the mumps virus. It was too weak to cause disease but still strong enough to cause an immune response. In 1967 the world's first live vaccine against mumps was marketed.

Hilleman was born August 30, 1919 in Miles City. His mother and twin sister died at childbirth. Hilleman attributed their death to influenza. In 1937 Hilleman was working at J.C. Penney's in the management program, when his older brother decided that Hilleman should go to college; he entered Montana State University. After

graduating from MSU, he won a fellowship to the University of Chicago. His Ph.D. dissertation was on chlamydia. Very little was known at the time about this group of microbes.

President Ronald Reagan awarded Hilleman the National Medal of Science in 1988.

Maurice Hilleman died April 11, 2005 in Philadelphia at age 85.

As of July 1, 2005, some Montana Medicaid fees have increased. Check it out at <http://www.mtmedicaid.org>. Click on Resources by Provider Type on the left, then choose the provider type (which will probably be physician services), then Fee Schedules.

Provider Satisfaction Survey Coming

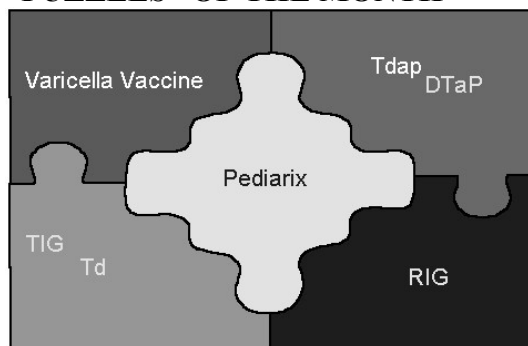
It's almost time to conduct the next Montana Immunization Program, Provider Satisfaction Survey. Be watching for it in the near future. Please continue to give us feedback so we can serve you better.

Last year the return rate was 72%! Most vaccine providers were generally satisfied. However, there are always a few things with which people are not satisfied.

♦Of course, most people would like to reduce the amount of paperwork necessary. We are exploring ways to reduce your necessary recordkeeping without losing the accountability we are required to keep for CDC. Be assured that we review and use all data we require you to submit.

♦Many people were not satisfied with screening for VFC eligibility. This year the survey will try to distinguish between those who have trouble with screening and those who are unhappy with the fact that we cannot use federally provided vaccine for all children.

“PUZZLES” OF THE MONTH



Situation 1: A bat is found in a room where a baby is sleeping.

Question: Do you need to give post exposure prophylaxis?

Answer: Yes, rabies post exposure prophylaxis (PEP) is recommended. When a bat is found in a dwelling, even in the absence of a known bite or scratch, the recommendation calls for aggressive use of PEP. If possible, the bat should be safely collected and submitted for rabies diagnosis. Details of these rabies recommendations were published in MMWR, 1998; vol. 47, no. 1. The indications for PEP are fairly complex, and depend on several factors. Providers who are responsible for decisions on PEP should also be familiar with the ACIP recommendations (MMWR, 1999; vol. 48, no. RR-1).

Situation 2: A client with a known allergy to latex has come to your clinic for vaccinations.

Question: Is there any reason to be concerned about latex allergies with respect to vaccine vial stoppers?

Answer: Some vial stoppers are made with natural rubber, which may contain latex as well as other impurities from the original latex material. Latex and other impurities may therefore be present in very small quantities in the vaccine, or on the needle as it passes through the stopper. Persons with anaphylactic reactions to latex should generally not be given vaccines that have been in contact with natural rubber, either in the vial or in a syringe. Manufacturers are beginning to switch to synthetic rubber-like materials that do not contain rubber latex or dry natural rubber. The

best approach is to check the package insert, which will indicate if the packaging contains latex. Also, remember that prefilled syringes could contain natural rubber in the plunger or in the needle cover. This information is also supplied in the package insert. Persons with latex allergies that are not anaphylactic may be vaccinated as usual.

Situation 3: A child presents to a clinic to receive the 6-month series of shots. The child is currently on antibiotics.

Question: Should you administer vaccines to a child who is taking antibiotics?

Answer: Treatment with antibiotics alone is not a valid reason to defer vaccination. If the child is otherwise well, or has only a minor illness, vaccines should be administered. But if the child has a moderate or severe acute illness, regardless of antibiotic use, one should defer vaccination until the child's condition has improved.

Influenza Vaccine Injuries Are Added to Federal Compensation Program

People thought to be injured by influenza vaccines given annually will be eligible for compensation under National Vaccine Injury Compensation Program (VICP), effective July 1, 2005.

The VICP, created by Congress in 1986 as an alternative to traditional civil litigation, provides financial compensation to eligible individuals thought to be injured by covered childhood vaccines. The program allows compensation for past and future medical expenses, pain and suffering, and lost wages. Compensation may also be awarded for attorneys' fees and costs.

Most people who receive the vaccine experience no serious problems. However, a vaccine, like any medicine, may rarely cause serious problems. In those rare cases, the VICP provides compensation to those found to be injured. To be eligible for compensation, claims must be filed. To obtain more information on the program, visit <http://www.hrsa.gov/osp/vicp>, or call the Montana Immunization Program.



Use of Macrolides in the Treatment and Prophylaxis of Pertussis (*from Guidelines for the Control of Pertussis Outbreaks January 2005, CDC*)

Newer macrolides (azithromycin, clarithromycin)

- Clinical studies have demonstrated that azithromycin and clarithromycin have microbiologic effectiveness comparable with erythromycin for treatment of pertussis in previously immunized individuals who are ≥ 6 months of age (3–8). In addition, adverse events were fewer and milder in the reported studies. No data are available on the effectiveness of azithromycin or clarithromycin for pertussis treatment in infants < 1 month of age. As compared with erythromycin, these drugs have higher tissue concentration and longer half-lives and have the advantage of being administered in fewer daily doses (1 or 2 doses per day), and in treatment courses that are shorter (5–7 days). These agents are contraindicated in patients with known hypersensitivity to any of the macrolide class of antibiotics.

Azithromycin

- The recommended dose of azithromycin for treatment of pertussis in infants and older children is five days course taken as 10 mg/kg/day in a single dose on day 1 (maximum dose 500 mg) to be followed by 5 mg/kg/day (maximum dose 250 mg) taken in a single dose on days 2–5; for adults, the recommended dose is 500 mg/day taken in a single dose on day 1 followed by 250 mg/day in a single dose on days 2–5.
- Azithromycin is classified as FDA Pregnancy Category B drug.

Clarithromycin

- The recommended dose of clarithromycin for treatment of pertussis in children is 15 mg/kg/day in two divided daily doses (maximum 500 mg per dose) for 7 days; for adults the recommended dose is 500 mg twice daily for 7 days.
- Clarithromycin is classified as a FDA Pregnancy Category C drug.
- Clarithromycin is contraindicated in patients with known hypersensitivity to macrolides. Clarithromycin should be used with caution when co-administered with other agents that are metabolized by the hepatic cytochrome P-450 system including some agents used to treat convulsive disorders, antiretroviral drugs, and in patients taking astemizole or cisapride; synergistic drug interactions or elevated serum levels of these drugs leading to serious cardiac arrhythmias can result with concomitant clarithromycin use. Drug interactions must be considered when clarithromycin is used concomitantly with theophylline, digoxin, oral anticoagulants, ergotamine or dihydroergotamine, lovastatin and other cholesterol-lowering drugs, and benzodiazepines; elevated and toxic levels of these drugs can result from drug interactions when taken with clarithromycin.

From the Montana Immunization Program: *Please note, there is a change in the use of Azithromycin in the above latest update, a Z-pack is appropriate to use for the treatment of and chemoprophylaxis of pertussis.*



The Montana Immunization Program plans to provide influenza vaccine this fall for all VFC eligible children through 18 years. Just a heads up for ordering purposes!



Points on Pertussis

- **Montana's current stats**

Cases of whooping cough continue in Montana. To date, over 418 cases have been reported. Currently Lewis & Clark County has been the pertussis hot spot with 133 cases and counting. Most of the cases in Lewis & Clark County were school-aged children.

- **Macrolide Update**

As of January 2005, CDC is recommending the use of the Azithromycin Z-Pack which is a loading dose of 500 mg on day one followed by 250 mg on days 2-5. For infants and children the dosage is 10 mg/kg/day in single dose on day 1 (maximum dose 500 mg) followed by 5 mg/kg/day (maximum dose 250 mg) days 2-5. (Previous recommendations reflected a larger dose schedule). ***See complete article on reverse side***

- **Tdap Vaccine is Here! + + +**

Tdap (**Boostrix™ from GSK**) and (**Adacel™ from Sanofi Pasteur**) vaccine is licensed and available to order for Medicaid, Insured, or Private Pay clients. **It is not yet available through the VFC Program.** To order Boostrix™ vaccine contact a distributor that you typically use for ordering vaccines. Some examples of these companies include Henry Schein, McKesson BioServices, or Dubin Medical. To order Adacel™ vaccine, order directly from Sanofi by calling 1-800-vaccine. The ACIP (American Committee on Immunization Practices) is developing guidance on spacing for Tdap with other vaccines as this article goes to press.

- **Excerpts from Dr. Melinda Wharton, National Immunization Program, CDC, “Editorial Commentary from Clinical Infectious Diseases 2004, Prevention of Pertussis Among Adolescents by Vaccination: Taking Action on What We Know and Acknowledging What We Do Not Know”**

Pertussis is the only disease for which children are routinely vaccinated that is not at historically low levels in the United States. The increases seen in pertussis are not due to ineffective vaccines or programs. The effectiveness of acellular pertussis vaccine has been demonstrated to be high in both prelicensure studies and postlicensure evaluations, and coverage among vaccine-eligible age groups remains high. However, pertussis continues to strike those who are susceptible because of waning vaccine-induced immunity and infants who are too young to have completed the primary vaccination series.

It is unclear what impact vaccinating young adolescents would have on disease incidence in other age groups. Do middle and high schools, with their high contact rates and susceptible populations, amplify *B. pertussis* circulation in the community? If routine vaccination of young adolescents prevented those outbreaks but immunity was not long-lasting, would outbreaks then occur among young adults? Would transmission to young infants—the group with highest morbidity and mortality due to pertussis—decrease or increase following implementation of an adolescent pertussis vaccination program? Mathematical modeling suggests that the impact of routine adult pertussis vaccination on the incidence of pertussis in young children may be relatively modest. (Hethcote HW. *Stimulations of pertussis epidemiology in the United States: effects of adult booster vaccinations. Math Biosci* 1999, 158: 47-73)

Outbreaks of pertussis do occur in middle and high schools. School-based outbreaks probably occur more frequently than we know; the differences in reported pertussis incidences among states are largely due to differences in rates of reported disease among older age groups. In contrast, the disease burden for adults is more uncertain, and implementation of a recommendation for routine adult booster vaccination would present significant challenges. As new tools become available for prevention of pertussis, we will have an opportunity to take action on what we know, to monitor the impact of our interventions, and look at the same time, to continue to work to better understand the things we do not know. **Comments from the Montana Immunization Program, It seems most important for local communities to track the adolescents who have received Tdap vaccination. The local county immunization registries working closely with local providers may want to consider this pursuit.**

Looking for a way to interact with the Long Term Care Facilities or senior citizen centers in your county, than partner up with YOU CAN!

YOU CAN! Steps to Healthier Aging is a campaign designed to increase the number of older adults who are active and healthy by using a partnership approach to mobilize communities.

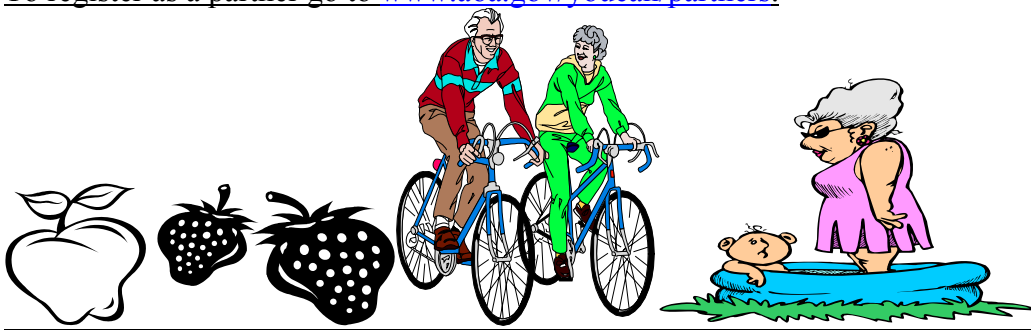
YOU CAN! is part of the U.S. Department of Health and Human Services' Steps to a Healthier US, which encourages Americans of all ages to make healthier and wiser choices.

The Administration on Aging will provide tools and information to help you get started in the campaign. If you register they will send you outreach and promotional materials. Provide examples of physical activity and nutrition programs and activities. The nutrition focus will be on eating a variety of fruits and vegetables.

Invite your senior centers or LTCF to participate in national events, recognize your organization as a YOU CAN! partner. You can write up your activities and celebrations as part of the YOU CAN! Celebrations contest. Only YOU CAN! partners that directly serve older adults are eligible to win awards. Examples would be local health departments, local governments, faith based organizations, LTCF and hospitals. In October there will be a ceremony in DC where the winners of leadership categories will be recognized.

As a partner you create opportunities for older adults to participate in new nutrition and physical activity behaviors for any seven days this September. Have fun- be creative.

To register as a partner go to www.aoa.gov/youcan/partners.



The Challenge

Stop in and exercise your brain! "The Challenge" is presented for a little fun and we encourage you to discuss "The Challenge" with your peers and e-mail an answer to: thoran@mt.gov or fax your answer to the Immunization Program at 444-2920 to Tim Horan or, mail to: The Challenge, Immunization Program, Cogswell Building, P.O. Box 202951, Helena, MT 59620-2951

Winners will be acknowledged with Kudos in the next newsletter, and your names will be entered into a drawing for a T-shirt.

Discuss this week's Newsletter Challenge and Stretch Your Mind!

CHALLENGE!

Question: You come home from a business trip, excited to see your family, and when you walk in the door you hear the familiar bickering you've come to love so well. Your son and daughter are at it again, this time arguing over a vaccination question your daughter had on a final exam. Your son says, "Dad, say you have A 15 month-old child to which a clinic accidentally gives hepatitis B vaccine subcutaneously and MMR vaccine intramuscularly. The child needs to be revaccinated, right?" You carefully agree, but then your daughter chimes in, "Well, MMR vaccine is different than in the case of Hepatitis B." Your son jumps in with "they both have to be repeated, wing nut!" "Do not, you little twerp!" your daughter spits back. "The ACIP says differently!" You briefly consider heading back to the airport to find somewhere else to go, but then settle them both down to teach them a little vaccinology. What do you say?

PLAN TO ATTEND



"Every Child By Two"

Immunization Partner's Meeting

September 14, 2005 – 7:00 – 8:20 a.m.

The MT Public Health Association Conference

Holiday Inn SunSpree Resort, W. Yellowstone, MT

JOIN US TO HEAR THE LATEST

Communicable Disease/Immunization News

Don't Miss This!!! Don't Miss This!!!

DOOR PRIZES AND BREAKFAST

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**If you know of Medicaid or VFC Fraud,
report it to the confidential Medicaid
Fraud Hotline. (800) 376-1115**

Upcoming Events

◆ **Face Reality-HIV/STD/Hepatitis Under the Big Sky:2005 HIV/STD/Hepatitis Conference August 18-19, MSU-Billings, Billings.**
Contact Laura Baus or Margaret Souza 444-2675.

◆ **Montana Public Health Association Meeting, September 13-15, Holiday Inn SunSpree Resort, West Yellowstone.** Contact Jan Kiely at jank@theglobal.net

◆ **Every Child By Two : Immunization Partners Meeting, September 14, 7:00-8:20 AM at MPHA meeting. Join us for breakfast to hear the latest Communicable Disease/Immunization News.**
Contact Marci Eckerson, 444-1805.

Satellite courses

◆ Immunization Update, July 28, 7-9:30 AM and 10-12:30 PM. **For more information you may email the following:** <http://www.phppo.cdc.gov/phtonline> or contact Beth Cottingham 444-2969.